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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/808,484	03/25/2004	Colin C.O. Goble	2558-78	5758

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EXAMINER	
PATEL, NIHIR B	
ART UNIT	PAPER NUMBER
3772	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	03/09/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	10/808,484	GOBLE ET AL.	
	Examiner	Art Unit	
	Nihir Patel	3772	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *11.17.2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *4,6,7,9-21 and 25-35* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *4,6,7,9-13,16,19-21,25-28 and 31-35* is/are rejected.

7)☒ Claim(s) *14, 15, 17, 18, 29 an d 30* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. The after final amendment of November 8th, 2006 was entered.

2. The indicated allowability of claims 4, 6, 7, 9-21 and 25-35 is withdrawn. A non-final office action is being issued.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims **4, 6, 7, 9-13, 16, 19-21, 25-28 and 31-35** are rejected under 35 U.S.C. 102(e) as being anticipated by Davison et al. (US 6,632,193).

5. **As to claim 4,** Davison teaches an apparatus that comprises a generator for delivering a radio frequency tissue treatment output in the frequency range of from 100kHz to about 50 MHz **(see column 21 lines 1-10)**, and an elongate instrument shaft configured to be mounted at a proximal end to a hand-piece and carrying at its distal end a bipolar electrode assembly connected to the generator **(see column 23 lines 58-67 and column 24 lines 1-7)**, wherein the electrode assembly includes an active electrode with an active zone at a distal end of the active electrode; and a return electrode with a return zone near the active zone; wherein at least one of the active and return zones has an electrically insulating dielectric covering such that in use a radio frequency electrical circuit between the active and return electrodes through the conductive

fluid is completed primarily by dielectric coupling through the dielectric covering **(see column 23 lines 58-67 and column 24 lines 1-7)** and wherein the frequency of operation of the generator and the construction of the electrode assembly are such that when a radio frequency current of 2 amps is delivered to the electrode assembly when immersed in normal saline, the current density at the outer surface of the dielectric covering does not exceed 50 mA/mm^2 **(Since Davison has the same structure, it would inherently perform in the same manner)**.

6. **As to claim 6,** Davison teaches an apparatus wherein both the active zone and the return zone are encased in respective insulative dielectric coverings so that the active zone is insulated from direct electrical contact with the tissue and the electrically conductive fluid and, in use, a circuit is completed between the active and return electrodes primarily by dielectric coupling through both coverings **(see column 23 lines 40-45; column 24 lines 1-10)**.

7. **As to claim 7,** Davison teaches an apparatus wherein the frequency of operation of the generator and the construction of the electrode assembly are such that there is a substantially uniformly distribution of electric field over the active and return zones and a corresponding substantially uniform current density of the electric field **(Since Davison has the same structure, it would inherently perform in the same manner)**.

8. **As to claim 9,** Davison teaches an apparatus that comprises a generator for delivering a radio frequency tissue treatment output in the frequency range of from 100kHz to about 50 MHz **(see column 21 lines 1-10)**, and an elongate instrument shaft configured to be mounted at a proximal end to a hand-piece and carrying at its distal end a bipolar electrode assembly connected to the generator **(see column 23 lines 58-67 and column 24 lines 1-7)**, wherein the electrode assembly includes an active electrode with an active zone at a distal end of the active

electrode; and a return electrode with a return zone near the active zone; wherein at least one of the active and return zones has an electrically insulating dielectric covering such that in use a radio frequency electrical circuit between the active and return electrodes through the conductive fluid is completed primarily by dielectric coupling through the dielectric covering **(see column 23 lines 58-67 and column 24 lines 1-7),** wherein each dielectric covering has a thickness greater than 50 μm **(see column 24 lines 1-10).**

9. **As to claim 10,** Davison teaches an apparatus wherein each dielectric covering is of sufficient thickness to result in a limited current density over the active and return zones so as to prevent significant power dissipation in any carbon tracking between the active and return zones during use of the electrode assembly **(see column 24 lines 1-10).**

10. **As to claim 11,** Davison teaches an apparatus wherein the dielectric covering over the return zone and the active zone both have a thickness greater than 50 μm **(see column 24 lines 1-10).**

11. **As to claim 12,** Davison teaches an apparatus wherein the dielectric covering over the return zone and the active zone both have a thickness less than 50 μm **(see column 24 lines 1-10).**

12. **As to claim 13,** Davison teaches an apparatus that comprises a generator for delivering a radio frequency tissue treatment output in the frequency range of from 100kHz to about 50 MHz **(see column 21 lines 1-10),** and an elongate instrument shaft configured to be mounted at a proximal end to a hand-piece and carrying at its distal end a bipolar electrode assembly connected to the generator **(see column 23 lines 58-67 and column 24 lines 1-7),** wherein the electrode assembly includes an active electrode with an active zone at a distal end of the active

electrode; and a return electrode with a return zone near the active zone; wherein at least one of the active and return zones has an electrically insulating dielectric covering such that in use a radio frequency electrical circuit between the active and return electrodes through the conductive fluid is completed primarily by dielectric coupling through the dielectric covering **(see column 23 lines 58-67 and column 24 lines 1-7)**, wherein the insulating covering which covers the return zone has a first pre-determined thickness and wherein a remainder of the return electrode is coated with a second dielectric covering having a second pre-determined thickness greater than the first pre-determined thickness and capable of substantially preventing capacitive coupling of the remainder of the return electrode to other instruments or to tissue within a body cavity **(see column 23 lines 40-45; column 24 lines 1-10)**.

13. **As to claim 16,** Davison teaches an apparatus wherein both the active zone and the return zone are encased in respective insulative dielectric coverings, wherein the dielectric covering encasing the return zone has a first pre-determined thickness and wherein a remainder of the return electrode is coated with a second dielectric covering having a second pre-determined thickness greater than the first pre-determined thickness and capable of substantially preventing capacitive coupling of the remainder of the return electrode to other instruments or to tissue within a body cavity **(see column 23 lines 40-45; column 24 lines 1-10)**.

14. **As to claim 19,** Davison teaches an apparatus that comprises a generator for delivering a radio frequency tissue treatment output in the frequency range of from 100kHz to about 50 MHz **(see column 21 lines 1-10)**, and an elongate instrument shaft configured to be mounted at a proximal end to a hand-piece and carrying at its distal end a bipolar electrode assembly connected to the generator **(see column 23 lines 58-67 and column 24 lines 1-7)**, wherein the

electrode assembly includes an active electrode with an active zone at a distal end of the active electrode; and a return electrode with a return zone near the active zone; wherein at least one of the active and return zones has an electrically insulating dielectric covering such that in use a radio frequency electrical circuit between the active and return electrodes through the conductive fluid is completed primarily by dielectric coupling through the dielectric covering **(see column 23 lines 58-67 and column 24 lines 1-7)**, wherein the insulative covering encases the active zone **(see column 23 lines 40-45; column 24 lines 1-10)**.

15. **As to claim 20,** Davison teaches an apparatus wherein the frequency of operation of the generator and the construction of the electrode assembly are such that when a radio frequency current of 2 amps is delivered to the electrode assembly when immersed in normal saline, the current density at the outer surface of the dielectric covering does not exceed 50 mA/mm^2 **(Since Davison has the same structure, it would inherently perform in the same manner)**.

16. **As to claim 21,** Davison teaches an apparatus wherein the active electrode is configured as at least one of a long needle and a wire and wherein the insulating covering on the active zones is of sufficient thickness that the current density is limited over the active zone and the active electrode can operate power efficiently when partly enveloped within a vapor pocket during vaporization **(see column 13 lines 58-67 and column 14 lines 1-20)**.

17. **As to claim 25,** Davison teaches an apparatus that comprises a generator for delivering a radio frequency tissue treatment output in the frequency range of from 100kHz to about 50 MHz **(see column 21 lines 1-10)**, wherein the instrument comprises an elongate shaft **20** configured to be mounted at a proximal end to a handpiece and carrying at its distal end a bipolar electrode assembly **(see column 19 lines 40-50)** which includes an active electrode with an active zone at

a distal end of the active electrode; and a return electrode with a return zone near the active zone; wherein at least one of the active and return zones has an electrically insulating dielectric covering such that in use a radio frequency electrical circuit between the active and return electrodes through the conductive fluid is completed primarily by dielectric coupling through the dielectric covering **(see column 23 lines 58-67 and column 24 lines 1-7),** wherein the electrode assembly is constructed such that, when an electrosurgical radio frequency current at least one frequency in the frequency range is delivered to the assembly when immersed in normal saline, the current density at the outer surface of the dielectric covering does not exceed 50 mA/mm^2 **(Since Davison has the same structure, it would inherently perform in the same manner).**

18. **As to claim 26,** Davison teaches an apparatus wherein the dielectric covering over the return zone and the active zone both have a thickness greater than 50 μm **(see column 24 lines 1-10).**

19. **As to claim 27,** Davison teaches an apparatus wherein the dielectric covering over the return zone and the active zone both have a thickness less than 50 μm **(see column 24 lines 1-10).**

20. **As to claim 28,** Davison teaches an apparatus that comprises a generator for delivering a radio frequency tissue treatment output in the frequency range of from 100kHz to about 50 MHz **(see column 21 lines 1-10),** wherein the instrument comprises an elongate shaft **20** configured to be mounted at a proximal end to a handpiece and carrying at its distal end a bipolar electrode assembly **(see column 19 lines 40-50)** which includes an active electrode with an active zone at a distal end of the active electrode; and a return electrode with a return zone near the active zone;

wherein at least one of the active and return zones has an electrically insulating dielectric covering such that in use a radio frequency electrical circuit between the active and return electrodes through the conductive fluid is completed primarily by dielectric coupling through the dielectric covering **(see column 23 lines 58-67 and column 24 lines 1-7),** wherein the discharge covering which covers the return zone has a first pre-determined thickness and wherein a remainder of the return electrode is coated with a second dielectric covering having a second pre-determined thickness greater than the first pre-determined thickness and capable of substantially preventing capacitive coupling of the remainder of the return electrode to other instruments or to tissue within a body cavity **(see column 23 lines 40-45; column 24 lines 1-10)**.

21. **As to claim 31,** Davison teaches an apparatus wherein both the active zone and the return zone are encased in respective insulative dielectric coverings, wherein the dielectric covering encasing the return zone has a first pre-determined thickness and wherein a remainder of the return electrode is coated with a second dielectric covering having a second pre-determined thickness greater than the first pre-determined thickness and capable of substantially preventing capacitive coupling of the remainder of the return electrode to other instruments or to tissue within a body cavity **(see column 23 lines 40-45; column 24 lines 1-10)**.

22. **As to claim 32,** Davison teaches an apparatus that comprises an electrosurgical instrument for treating tissue immersed in an electrically conductive fluid with radio frequency tissue treatment output in the frequency range of from 100kHz to about 50 MHz **(see column 21 lines 1-10)**, wherein the instrument comprises an elongate shaft **20** configured to be mounted at a proximal end to a handpiece and carrying at its distal end a bipolar electrode assembly **(see**

column 19 lines 40-50) which includes an active electrode with an active zone at a distal end of the active electrode; and a return electrode with a return zone near the active zone; wherein at least one of the active and return zones has an electrically insulating dielectric covering such that in use a radio frequency electrical circuit between the active and return electrodes through the conductive fluid is completed primarily by dielectric coupling through the dielectric covering **(see column 23 lines 58-67 and column 24 lines 1-7),** wherein the dielectric covering encases the active zone **(see column 23 lines 40-45; column 24 lines 1-10)**.

23. **As to claim 33,** Davison teaches an apparatus wherein the active electrode is configured as at least one of a long needle and a wire and wherein the insulating covering on the active zones is of sufficient thickness that the current density is limited over the active zone and the active electrode can operate power efficiently when partly enveloped within a vapor pocket during vaporization **(see column 13 lines 58-67 and column 14 lines 1-20)**.

24. **As to claim 34,** Davison teaches an apparatus wherein the active electrode comprises a ceramic body defining an internal cavity which cavity is lined with metal, the ceramic body having an outer tissue or fluid contact surface **(see column 22 lines 28-45)**.

25. **As to claim 35,** Davison teaches an apparatus wherein the return zone is covered with an insualtive dielectric outer layer having an outer fluid contact surface **(see column 22 lines 28-45)**.

Allowable Subject Matter

26. Claims **14, 15, 17, 18, 29 and 30** are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of

the base claim and any intervening claims. The prior art does not disclose a return zone that is isolated from the remainder of the return electrode by an isolating transformer or by a common mode choke positioned between the return zone and the remainder of the return electrode.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nihir Patel whose telephone number is (571) 272-4803. The examiner can normally be reached on 7:30 to 4:30 every other Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patricia Bianco can be reached on (571) 272-4940. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Art Unit 3772

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3/8/07